

**ARTICULATION AGREEMENT**  
**For**  
**Medical Laboratory Technology (MLT) and Clinical Laboratory Sciences (CLS)**

Between  
Reynolds Community College (Reynolds)  
And  
Virginia Commonwealth University (VCU)

Purpose: This memorandum of understanding has been developed within the framework of the Virginia State Policy on Transfer to facilitate the transfer of students who have completed the course of study for the Associate of Applied Science (AAS) degree in Medical Laboratory Technology (MLT) at Reynolds Community College to the Bachelor of Science degree in Clinical Laboratory Sciences at Virginia Commonwealth University. This agreement updates and supersedes the Articulation Agreement between Reynolds and VCU signed in April 2008.

Reynolds will advertise this program to its present student population, specifically targeting students graduating from the MLT program. VCU will advertise this program to prospective students as part of its recruitment efforts for the BS in CLS degree completion program.

The Department of Clinical Laboratory Sciences (CLS) at Virginia Commonwealth University (VCU) offers a course of study for certified MLTs leading to the Bachelor of Science degree in Clinical Laboratory Sciences. MLTs, who hold an associate degree in medical technology from Reynolds Community College and are actively certified as medical laboratory technicians, may be granted credit in the undergraduate CLS program for upper-level course requirements through challenge examinations or exemptions based on documented competencies in required laboratory skills. In addition, students who meet the exemption eligibility requirements for the junior level laboratory portions of the curriculum may take the didactic courses online. Both full-time and part-time students are accepted into the program. The degree completion program, including prerequisite courses, requires a total of 125 semester credits, which are earned through course enrollment at VCU, transfer credit from other institutions of higher education, and credits based on documented competencies.

**Eligible Students:**

Eligible students are those who meet the following criteria:

- a) Earn an Associate of Applied Science degree in Medical Laboratory Sciences at Reynolds Community College;
- b) Earn a minimum cumulative college-level grade point average of 2.0 on a 4.0 scale on all college/university courses completed prior to admission;
- c) Submit documentation of active MLT national certification prior to enrollment in the VCU Clinical Laboratory Sciences program;
- d) Receive satisfactory recommendation from the Reynolds MLT program director;
- e) Receive a satisfactory rating on an interview with a VCU CLS faculty member;
- f) Complete a minimum of 44 non-MLT semester hours of transferable credit for admission as a full-time student or 38 non-MLT credit hours for admission as a part-time student;
- g) Earn an individual grade no lower than a C in the following general education and science prerequisite courses:
  - 6 credits of English Composition (ENG 111-112)
  - 8 credits of Biology (Select from: BIO 101-102 or BIO 141-142)
  - 8 credits of Chemistry (CHM 111-112)
  - 3 credits of Mathematics (Precalculus math or higher)

### Completion of Prerequisite Coursework

A total of 60 credits in prerequisite coursework must be completed for the B.S. degree. Once admitted into the baccalaureate program, an MLT is required to complete the remainder of the prerequisite coursework, which may be transferred from another college or university during your studies at VCU **two semesters prior to graduation**. Please refer to the VCU Course Equivalency Tables (<http://www.transfer.vcu.edu/vccs/course-equivalency.aspx>) to determine VCU course equivalencies. These requirements include:

- an additional *4 semester credits of biology* (for a total of 12 semester credits of Biology).
- an additional *4 semester credits of either organic chemistry (e.g., CHM 241 and 243) or quantitative analysis* lecture and lab (for a total of 12 semester credits of Chemistry).

### **Admission to Virginia Commonwealth University:**

VCU guarantees admission into its BS in Clinical Laboratory Sciences program with junior standing to eligible students who have completed the AAS in Medical Laboratory Technology at Reynolds.

### **Transfer of Credits:**

The attached "MLT-CLS Transfer Program Table" lists the respective transfer credits that will be awarded by VCU for courses offered by Reynolds for transfer under the terms of the Agreement. This table will be updated as curricula evolve. Courses listed on this table will be reviewed, as needed, by the faculty of both institutions to ensure continuity of instruction, curriculum, and evaluation.

In addition to the courses listed on the transfer table, eligible students may be granted credit in the undergraduate CLS program for upper-level course requirements through challenge examinations or exemptions based on documented competencies in required laboratory skills (see Curriculum Provisions below). The degree completion program, including prerequisite courses, requires a total of 125 semester credits, which are earned through course enrollment at VCU, transfer credit from other institutions of higher education, and credits based on documented competencies.

### **Curriculum Provisions:**

#### A. Junior Year:

1. The student is eligible to receive up to 11.0 semester hours through exemptions based on training received in an accredited MLT program. MLT (or eligible) students are exempt from the following course in the Clinical Laboratory Sciences curriculum:

CLLS 337 Clinical Education (1.0 credit hour).

2. Exemptions from the laboratory portions of the CLLS 300 level courses are based on grades earned in the MLT program. A student who received a grade of C or above in each course related to a specific discipline in the MLT program will be exempt from the laboratory portion of the corresponding CLLS course:

Course No.	Title	Credit Hours
CLLS 301	Hematology	1.5
CLLS 304	Urine and Body Fluid Analysis	0.5
CLLS 306	Immunohematology	2.0
CLLS 308	Path. Microbiology	2.0
CLLS 310	Clinical Immunology	1.0
CLLS 311/312	Clinical Chemistry and Instrumentation	3.0

Please note that this exemption does not apply to CLLS 302 Hematology laboratory.

3. Proficiency credit(s), but no grade, will be recorded on the student's transcript for the exempted course(s) at the completion of the semester in which the course is offered.
4. Exemptions apply only to courses taken within the last 5 years. Courses completed before that time will be evaluated, and the faculty member responsible for the course will have the option of requiring a proficiency test. For guidelines, see the following section on challenge examinations.
5. Challenge Examinations:
  - Challenge examinations may be taken for the lecture and/or lab portions of all the junior level courses from which the student is not exempt.
  - Challenge examinations are given 1 - 2 weeks prior to the beginning of the semester in which the course is offered.
  - A grade of >70% must be achieved to successfully pass a challenge examination.
  - Proficiency credit(s) but no grade will be recorded on the student's transcript for successfully challenged courses at the completion of the semester in which the course is offered.

#### B. Senior Year

1. Certified MLTs who completed clinical training through an accredited MLT program within the last 5 years and/or the equivalent of at least 2 years of full-time work experience in a clinical laboratory as an MLT within the last 5 years would be permitted to obtain advanced standing (15 credits) for the following courses by passing the Clinical Qualifying Examination (CQE):

Course No.	Title	Credit Hours
CLLS 483	Biochemistry Practicum	3.0
CLLS 485	Hematology Practicum	3.0
CLLS 493	Clinical Microbiology Practicum	3.0
CLLS 494	Miscellaneous Clinical Practicum	3.0
CLLS 496	Blood Bank Practicum	3.0

2. A comprehensive Clinical Qualifying Examination will be given each summer. To be eligible, all junior (300) level CLLS coursework must be completed. The exam will be divided into the following sections:
  - Chemistry (to include Toxicology and Instrumentation)
  - Hematology (to include Coagulation and Urinalysis)
  - Microbiology (to include Parasitology)
  - Immunohematology
  - Immunology
  - Urine and Body Fluid Analysis

A minimum passing grade of 60% in all sections is required in order to progress in the program.

3. Upon successfully passing the Clinical Qualifying Examination, 15 proficiency credit(s) for the practicum courses, but no grade, will be recorded on the student's transcript during the final semester of the program. Cases in which a student does not pass the qualifying examination after three attempts will be reviewed by the faculty on an individual basis.
4. Senior (400 level) academic courses cannot be challenged. Students are permitted to take two senior courses prior to finishing the junior curriculum and passing the CQE if they achieved a grade of B or higher in all courses relevant to the discipline.

#### C. Degree Requirements for All Undergraduate Students

In accordance with VCU's policy, degree candidates must complete at least 25 percent of the credit semester hours required for their bachelor's degree program at VCU, including at least 30 of the last 45 credits. For the CLS program, students must complete 31 credits of upper level coursework at VCU. Thus, students in the degree

completion program may obtain a maximum of 34 proficiency credits obtained through exemption or challenge examinations.

#### D. Online Curriculum

MLTs may complete all didactic coursework using distance-based learning technology. The online courses eliminate the need for students to relocate and allows them to work as they complete the program. This option is restricted to MLTs who are awarded proficiency credits for the laboratory sections of all the junior (300) level CLS courses through exemptions or challenge examinations. Students who choose this route must own a contemporary personal computer equipped with WiFi or Cable internet.

#### Additional Terms:

1. Students who intend to transfer to VCU under the terms of this agreement must complete the online *Letter of Interest* after completing 15 transferable credit hours at Reynolds. The *Letter of Interest* form can be found on the VCU Office of Admissions website (<http://ugrad.vcu.edu/apply/transfer/agreements.html>). Students who submit the *Letter of Interest* will be contacted periodically by VCU representatives with important information to facilitate a successful transfer to VCU. VCU will work with students who have a *Letter of Interest* on file to ensure that curriculum changes made after the *Letter of Interest* is received but prior to matriculation to VCU will not negatively impact the admissions decision.
2. The electronic portions of the application procedures (including letters of references) must be submitted no later than midnight on April 1. In addition, all transcripts must be received (not postmarked) in the Office of Admissions on or before April 1. Late applications will be accepted if space is available. Please contact the office of the chair at (804) 828-9469 if attempting to apply after the deadline. Those who hold MLT/CLT certification or are eligible for certification may also apply for spring entry. The spring deadline is November 1.

The terms of this articulation agreement shall be reviewed every three years. Either party to this agreement may withdraw from this agreement by providing written notice one year in advance of their intention to withdraw to the primary contact at the other institution. The primary contact at Reynolds shall be the dean of the School of Nursing and Allied Health (804-523-5375). The primary contact for the agreement and related matters at VCU shall be the Chair of the Department of Clinical Laboratory Sciences (804-828-9469).

APPROVE:



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President of Reynolds Community College

10.5.2017

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Date



\_\_\_\_\_  
President of Virginia Commonwealth University

8/14/17

\_\_\_\_\_  
Date

**Reynolds Community College/Virginia Commonwealth University**  
**MLT to CLS Transfer Table**  
 Associate of Applied Science in Medical Laboratory Technology (MLT) to  
 Bachelor of Science in Clinical Laboratory Sciences (CLS)

Reynolds Community College Associate of Applied Science in MLT				Virginia Commonwealth University Bachelor of Science in CLS			
Major				Major			
Discipline	No.	Course Title	CR	Discipline	No.	Course Title	CR
BIO 101-102 Or BIO 141-142		Intro. To Biology I-II Or Human Anatomy & Physiology I & II	8	BIOL/Z 151-152 Or BIOL 205 + PHIS/Z 206		Intro. To Biological Science I-II Or Anatomy and Physiology	8
CHM	111-112	College Chemistry I-II	8	CHEM/Z	101-102	General Chemistry I-II	8
ENG	111	College Composition I	3	UNIV	111-112	Focused Inquiry I-II	3
ENG	112	College Composition II	3	UNIV	200	Writing and Rhetoric	3
ITE	115	Introduction to Computer Applications	3	INFO	160, 161, 162	Intro. To Windows, Intro. To Micro. Word Proc., Intro. To Spreadsheets	3
MTH	163	Precalculus I	3	MATH	141	Algebra with Applications	3
SDV	100	College Success Skills	1			Non Transferable	0
		Social/Behavioral Science Elective (select from courses in anthropology, economics, geography, psychology, sociology or social sciences)	3			VCU Equivalent	3
		Humanities/Fine Arts Elective (select from courses in history, philosophy, political science, religion, foreign languages, literature, or art history/arts)	3			VCU Equivalent	3
		Personal/Wellness Elective	2			VCU Equivalent	2
MDL	101	Intro. To Medical Laboratory Techniques	3			Proficiency credit	
MDL	110	Urinalysis and Body Fluids	3			Proficiency credit	
MDL	125	Clinical Hematology I	3			Proficiency credit	
MDL	190	Coordinated Practice in Phlebotomy	2			Proficiency credit	
MDL	210	Immunology and Serology	3			Proficiency credit	
MDL	216	Blood Banking	4			Proficiency credit	
MDL	225	Clinical Hematology II	3			Proficiency credit	
MDL	251	Clinical Microbiology I	3			Proficiency credit	
MDL	252	Clinical Microbiology II	3			Proficiency credit	
MDL	262	Clinical Chemistry and Instrumentation II	4			Proficiency credit	
MDL	281	Clinical Correlations (online course)	1			Proficiency credit	
MDL	290	Coordinated Practice in Blood Bank/Transfusion Medicine	2			Proficiency credit	

MDL	290	Coordinated Practice in Clinical Chemistry	2			Proficiency credit	
MDL	290	Coordinated Practice in Hematology	2			Proficiency credit	
MDL	290	Coordinated Practice in Microbiology	2			Proficiency credit	
MDL	290	Coordinated Practice in Urinalysis/Serology/Coagulation	1			Proficiency credit	
				Minimum number of proficiency credits transferred to VCU upon successful completion of the Clinical Qualifying Examination (CQE). Additional proficiency credits for junior level CLS courses will be awarded to students who successfully pass challenge examinations.			26
<b>Total Credits for Associates Degree</b>			<b>78</b>	<b>Total Transferred to VCU</b>			<b>62</b>
<b>Additional required courses</b>				<b>Additional required courses</b>			
<b>Discipline</b>	<b>No.</b>	<b>Course Title</b>	<b>CR</b>	<b>Discipline</b>	<b>No.</b>	<b>Course Title</b>	<b>CR</b>
BIO		An additional 4 credits of Biology	4	BIOL		VCU equivalent (check VCU Course Equivalency Tables)	4
CHM	241	Organic Chemistry I	3	CHEM	301	Organic Chemistry I	3
CHM	243	Organic Chemistry I Lab	1	CHEZ	301	Organic Chemistry I Lab	1
<b>Additional Credits</b>			<b>8</b>	<b>Additional Transfer Credits to VCU</b>			<b>8</b>
<b>Total Credits at Reynolds CC</b>			<b>86</b>	<b>Total Credits Transferred to VCU</b>			<b>70</b>
<p>A total of 11 proficiency credits for the junior year of the CLS curriculum at VCU will be awarded to students for completion of the AAS degree through exemptions based on training received in an accredited MLT program. Additional proficiency credit will be awarded to students who successfully pass challenge examinations.</p>							
<p>A total of 15 proficiency credits for the senior year of the CLS curriculum will be awarded to recipients of the AAS degree who pass the Clinical Qualifying Examination (CQE).</p>							
<b>Total minimum required for BS in CLS</b>							<b>125</b>

VCU REVIEWERS:

*Teresa Nadder*

Teresa Nadder, Chairperson, Department of  
Clinical Laboratory Sciences

June 14, 2017  
Date

*Alexander Tartaglia*

Alexander Tartaglia, Senior Associate Dean,  
School of Allied Health Professions

6/14/17  
Date

*Seth Sykes*

Seth Sykes, Chief Transfer Officer  
Strategic Enrollment Management

6/15/17  
Date

*Sybil Halloran*

Sybil Halloran, Interim Vice Provost for  
Strategic Enrollment Management

7-17-17  
Date

*Deborah Noble-Triplett*

Deborah Noble-Triplett, Sr. VP for AA

8-4-2017  
Date

*Gail Hackett*

Gail Hackett, Provost and  
Vice President for Academic Affairs

8/7/17  
Date